

**REMARKS**

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The claims have been amended and new Claims 13-15 has been added as supported by the claims and specification as originally filed.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-15 will now be active in this application.

Further, the present invention as set forth in **amended Claim 1** relates to a process for producing foamable crosslinked polymers, comprising:

polymerizing a mixture comprising

- (A) 30-70 parts by weight of (meth)acrylic acid,  
30-60 parts by weight of (meth)acrylonitrile,  
0-30 parts by weight of other monomers having vinyl unsaturation,
- (B) 0.01-15 parts by weight of tert-butyl methacrylate and/or tert-butyl acrylate,
- (C) 0.01-10 parts by weight of blowing agent,
- (D) 0.01-10 parts by weight of crosslinking agent,
- (E) 0.01 to 2 parts by weight of polymerization initiators and
- (F) 0 to 20 parts by weight of conventional additives

in bulk to give a sheet;

wherein said sheet is optionally subjected to the following treatment:

heat-conditioning and then foaming at temperatures of from 150 to 250°C.

**Claim 3** relates to a foamable crosslinked polymer comprising

- (A) 30-70 parts by weight of (meth)acrylic acid,  
30-60 parts by weight of (meth)acrylonitrile,  
0-30 parts by weight of other monomers having vinyl unsaturation,
- (B) 0.01-15 parts by weight of tert-butyl methacrylate and/or tert-butyl acrylate,
- (C) 0.01-10 parts by weight of blowing agent,
- (D) 0.01-10 parts by weight of crosslinking agent,
- (E) 0.01 to 2 parts by weight of polymerization initiators and
- (F) 0 to 20 parts by weight of conventional additives.

**New independent Claims 14 and 15** are based on Claims 1 and 3 with component (B) being 0.01-15 parts by weight of tert-butyl methacrylate.

The remaining claims are dependent claims.

Applicants wish to thank Examiner Lenihan and supervisory Examiner Zemel for the helpful and courteous discussion with Applicants' Representative on August 4, 2009. During this discussion it was noted that the claims are rejected over Geyer et al. (US 5,928,459) in view of Tada et al. (US 5,225,449). However, Geyer does not disclose the use of t-butyl (meth)acrylate. Tada discloses the use of large amounts of 5 to 50% the weight of t-butyl (meth)acrylate.

The secondary reference does not recognize that amounts between 0.01 and 15 parts by weight give foams with good thermo-mechanical properties and extremely fine and uniform pore structure. See page 9, lines 22-26 of the specification. Applicants'

Representative also noted page 9, lines 28-39 of the specification, as well as the examples starting at page 14.

Further, the Examiners pointed to col. 4 of Geyer which discloses generally the use of esters of methacrylic acid of C1-4 alcohols up to 20 wt%. However, the specific use of t-butyl methacrylate is not mentioned or exemplified. The Examiners' also referred to the 7th Example from the top of table 1 of Tada in which 10 parts of TBMA are used. The Examiners then argued that it would have been obvious to use 10 parts of TBMA in Geyer. Applicants disagree. Applicants refer to the above-mentioned disclosure at page 9 which mentions superior thermo-mechanical properties. Table 4 also provides mechanical properties.

Moreover, TBMA and TBA are comparable and it is therefore believed that additional comparative data are not necessary.

Furthermore, please be informed that the corresponding EP patent has been granted under EP 1678244 B1 with TBMA and TBA.

However, in new Claims 14 and 15, there is no TBA in component (B).

Tada et al, Stein, Wu, Zacharopoulos, Nienwendijk and Baumann do not cure the defects of Geyer et al.

Therefore, the rejection of the claims under 35 U.S.C. § 103(a) over Geyer et al, in view of Tada et al, Stein, Wu, Zacharopoulos, Nienwendijk and Baumann are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The rejection of the claims as being indefinite is obviated by the amendment of the claims. In Claim 1 it has been clarified that heat-conditioning and foaming are both optional.

Further, since the foaming is optional, the claims correctly claim "foamable" polymers in the preamble. As such, Claim 5 is definite as well. Also, in Claims 1 and 3, (meth)acrylic acid and (meth)acrylo nitrile have been claimed as supported at page 10, lines 22-29 of the specification. Claim 7 has been amended as suggested by the Examiner at page 3, item 7. of the Office Action.

The rejections of the claims as being indefinite should be withdrawn.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.


Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

Customer Number

**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
KAG  
(OSMMN 08/07)

  
Kirsten A. Grueneberg, Ph.D.  
Registration No.: 47,297